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consists essentially of a glycosylated polypeptide having an apparent relative molecular mass  $M_r$  of about 43 kDa as determined by its electrophoretic mobility when subjected to 15% SDS-PAGE electrophoresis and having homology in amino acid sequence with the amino acid sequence (SEQ ID No: 1) of human plasma Zn- $\alpha_2$ -glycoprotein.

33. (New) A lipid mobilizing agent as claimed in claim 32 which is obtainable by a process that includes sequential steps of subjecting biological material to ion exchange chromatography, exclusion chromatography, and then to hydrophobic interaction chromatography, said biological material being urine from a cancer cachexia patient or an extract of a culture of a MAC16 tumor cell line deposited under the provisions of the Budapest Treaty in the European Collection of Animal Cell Cultures (ECACC) under an Accession No. 89030816.

34. (New) A biologically active lipid mobilizing agent as claimed in claim 31 for therapeutic use which is a glycosylated polypeptide wherein the polypeptide moiety is selected from one of the following groups:

- (a) a polypeptide having the amino acid sequence of a Zn- $\alpha_2$ -glycoprotein;
- (b) a polypeptide which in respect to (a) is deficient in one or more amino acids that do not significantly affect the lipid mobilizing the lipolytic activity;

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- (c) a polypeptide in which in respect to (a) one or more amino acids are replaced by a different amino acid or acids that do not significantly affect the lipid mobilizing or lipolytic activity;
  - (d) a polypeptide in which in respect to (a) there is incorporated a plurality of additional amino acids which do not interfere with the biological lipolytic activity.

35. (New) A biologically active lipid mobilizing agent for use in therapy as claimed in claim 31 consisting essentially of a glycoprotein that has a polypeptide amino acid sequence homologous with the amino acid sequence (SEQ ID No: 1) of human plasma Zn- $\alpha_2$ -glycoprotein, or with a variant thereof which is modified by minor additions, deletions, or substitutions that do not substantially affect its lipid mobilizing activity in biological systems.

36. (New) A lipid mobilizing agent for use in therapy as claimed in claim 34 or 35 further characterized in that it has an apparent relative molecular mass  $M_r$  of about 43 kDa as determined by its electrophoretic mobility when subjected to 15% SDS-PAGE electrophoresis.

37. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 wherein its lipid mobilizing properties are destroyed when subjected to digestion with chymotrypsin.

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38. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 wherein it has the potential *in vitro* to stimulate adenylate cyclase activity in a guanine triphosphate (GTP) dependent process upon incubation with murine dipocyte plasma membranes.

39. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 which has substantially the same immunological properties as human Zn- $\alpha_2$ -glycoprotein.

40. (New) A biologically active lipid mobilizing agent for use in therapy which is capable of inducing lipolysis in mammalian adipocytes characterized, which has an apparent molecular mass  $M_r$  as determined by gel exclusion chromatograph greater than 6.0 kDa, and which is obtainable by subjecting the lipid mobilizing agent claimed in claim 31 to fragmentation by enzymatic degradation.

41. (New) A biologically active lipid mobilizing agent as claimed in claim 40 for use in therapy that is a fragment of a glycoprotein or glycosylated polypeptide which is a component of the lipid mobilizing agent claimed in claim 31 produced by digesting the latter with trypsin.

42. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 which is substantially free of proteolytic activity.

43. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 wherein the polypeptide chain of the polypeptide component has an N-terminus blocked by a pyroglutamate residue.

44. (New) A lipid mobilizing agent for use in therapy as claimed in claim 31 wherein the lipid mobilizing activity is destroyed by periodate treatment.

45. (New) A method of isolating and purifying a lipid mobilizing agent having the properties and characteristics of a Zn- $\alpha_2$ -glycoprotein, said method comprising subjecting an extract of a cachexia-inducing tumor or of a culture of a cachexia-inducing tumor cell line, or a sample of urine or other body fluid of a mammal bearing a cachexia-inducing tumor, to a combination of ion exchange, gel filtration size exclusion chromatography, and hydrophobic interaction chromatography, and recovering a single product or molecular species having an apparent relative molecular mass of 43 kDa, as determined by 15% SDS-PAGE electrophoresis, which is substantially free of proteolytic activity.

46. (New) A pharmaceutical composition for use in treating mammals, said composition containing as the active constituent an effective therapeutic amount of a lipid mobilizing agent as claimed in claim 31, together with a pharmaceutically acceptable carrier, diluent or excipient.

47. (New) A pharmaceutical composition as claimed in claim 46 which is an injectable formulation incorporating a carrier in the form of a pharmaceutically acceptable injection vehicle.

48. (New) A method of treating a mammal to bring about a weight reduction or reduction in obesity, said method comprising administering to the mammal in need of such treatment a therapeutically effective dosage of a lipid mobilizing agent as claimed in claim 31.

49. (New) A method of treating a mammal to bring about a weight reduction or reduction in obesity, said method comprising administering to the mammal in need of such treatment a therapeutically effective dosage of a glycoprotein identical to or homologous with human Zn- $\alpha_2$ -glycoprotein, or an effective lipolytically active fragment thereof which has an apparent molecular mass  $M_r$  as determined by gel exclusion chromatography that is greater than 6.0 kDa, substantially free of any proteolytic activity.

50. (New) A diagnostic method for detecting the presence of a tumor in a mammal and/or for monitoring the progress of treatment of such a tumor, said method comprising taking from said mammal a sample of urine, blood serum or other body fluid and testing to detect the presence of and/or to measure the amount therein of Zn- $\alpha_2$ -glycoprotein.

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51. (New) A diagnostic method as claimed in claim 50 wherein the testing is carried out by use of a biochemical reagent capable of specifically recognizing and binding to Zn- $\alpha_2$ -glycoprotein.

52. (New) A diagnostic method as claimed in claim 51 wherein the biochemical reagent is a monoclonal or polyclonal antibody.

53. (New) A diagnostic method as claimed in claim 50 which is applied to a sample of urine.

54. (New) A diagnostic kit for carrying out the method of claim 50, said kit comprising a receptacle for receiving the sample of body fluid, a biochemical reagent for detecting Zn- $\alpha_2$ -glycoprotein, and instructions for use of said kit.

55. (New) Use of a lipid mobilizing agent as defined in claim 31 for producing antibodies for use as a diagnostic detecting agent for use in therapy as inhibitors or antagonists to the lipid mobilizing agent causing cachexia in cancer patients.

56. (New) Use of a preparation of antibodies for the manufacture of a medical preparation or medicament for the treatment of cachexia-associated cancer and/or tumors, wherein said antibodies are capable of specifically recognizing and binding to the lipid mobilizing agent claimed in claim 31.

57. (New) Use as claimed in claim 56 of a preparation of antibodies wherein the antibodies are monoclonal antibodies.

58. (New) Use of a lipid mobilizing agent as defined in claim 31 for screening and identifying and/or for carrying out investigations of possible lipolytic activity inhibiting agents having potential as anti-cachectic or anti-tumor therapeutic agents.

59. (New) Use as claimed in claim 58 wherein samples of possible antagonists to, or inhibitors of, the activity of said lipid mobilizing agent are added to preparations of said lipid mobilizing agent, followed by incubation *in vitro* with a preparation of adipocytes and assaying to determine the level of lipolytic activity relative to that of a control sample.